

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Re: Application of: Werner KNEBEL et al.  
Serial No.: 10/713,887 Confirmation No.: 1103  
Filed: November 14, 2003  
For: SCANNING MICROSCOPE  
Art Unit: 2872  
Examiner: Joshua L. Pritchett  
Customer No.: 23280

Mail Stop: APPEAL BRIEF - PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

July 27, 2007

**APPELLANTS' SECOND SUPPLEMENTAL REPLY BRIEF UNDER 37 C.F.R. § 41.41 IN**  
**RESPONSE TO EXAMINER'S SECOND SUPPLEMENTAL ANSWER**

Sir:

Appellants submit this reply brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in response to the Examiner's Second Supplemental Answer mailed May 30, 2007.

## STATUS OF CLAIMS

Claims 1-5 and 8-20 are pending. Claims 1-5 and 8-20 have been finally rejected as per the Final Office Action dated September 19, 2005.

The rejection of claims 1-5 and 8-20 thus is appealed. A copy of appealed claims 1-5 and 8-20 is attached hereto as the sole Appendix.

## GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1, 3-12 and 14-20 should be rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,065,008 issued to Hakamata et al. ("Hakamata et al."). Whether claims 2 and 13 should be rejected under 35 U.S.C. 103(a) as being unpatentable over Hakamata et al. in view of U.S. Patent No. 5,523,573 issued to Hänninen et al. ("Hänninen et al.").

## ARGUMENTS: RESPONSE TO EXAMINER'S SECOND SUPPLEMENTAL ANSWER MAILED MAY 30, 2007

The claims require operating the optical shutters based on, i.e., in dependence upon, a detected light power level. The Hakamata et al. reference does not teach or suggest this feature. In contrast, Hakamata et al. controls the liquid crystal shutter 23a based on a synchronization from control circuit 32. The control circuit 32 controls the liquid crystal shutter 23a independently of, i.e., *not* based on, a light power level detected by photodetector 25. Control circuit 32 receives no detected power level input from photodetector 25 or any other device. See Hakamata et al., col. 8, lines 29-39, and Fig. 1. The detected light power level has no effect on the control circuit 32 or the shutter 23a. Control circuit 32 and photodetector 25 independently feed signals into processing device 26 to generate an image of a sample. See Hakamata et al., col. 8, lines 48-53, and Fig. 1. Photodetector 25 feeds no signal to control circuit 32. The operation of shutter 23a in Hakamata et al. thus cannot be based on a light power level detected by photodetector 25, as required by the claims.

It is respectfully submitted that the claimed invention is patentable over Hakamata et al.

## APPENDIX

### PENDING CLAIMS 1-5 and 8-20 OF U.S. APPLICATION SERIAL NO. 10/713,887

Claim 1 (previously presented): A scanning microscope having a detector, arranged in a detection beam path, for receiving detection light proceeding from a sample, a monitoring means that measures the light power level of the detection light, and an optical shutter means between the sample and the detector with which the detection beam path can be blocked based on the light power level of the detection light exceeding a definable threshold.

Claim 2 (original): The scanning microscope as defined in Claim 1, wherein the detector is a non-descan detector.

Claim 3 (original): The scanning microscope as defined in Claim 1, wherein the detector is a descan detector.

Claim 4 (original): The scanning microscope as defined in Claim 1, further comprising a control means for controlling the shutter means.

Claim 5 (original): The scanning microscope as defined in Claim 1, wherein the detection beam path can be automatically opened up before the beginning of a scanning operation, and blocked at the end of the scanning operation.

Claims 6-7 (canceled)

Claim 8 (original): The scanning microscope as defined in Claim 4, wherein the control means extrapolates the future change over time in the detection light power level, and wherein the

detection beam path is automatically blockable when the light power level of the detection light is expected to exceed a definable threshold.

Claim 9 (original): The scanning microscope as defined in Claim 1, wherein the shutter means contains a mechanical shutter or an electrooptical element or acoustooptical element or LCD element.

Claim 10 (original): The scanning microscope as defined in Claim 1, wherein the detector contains a photodiode, in particular an avalanche photodiode, or a CCD element, in particular an EMCCD element, or a photomultiplier or photomultiplier array.

Claim 11 (original): The scanning microscope as defined in Claim 1, wherein the scanning microscope is a confocal scanning microscope.

Claim 12 (previously presented): A method for scanning a sample, comprising:  
providing a microscope having a detector disposed in a detection beam path and configured to receive detection light proceeding from the sample;  
measuring the light power level of the detection light using a monitoring means; and  
blocking the detection beam path, when the light power level of the detection light exceeds a definable threshold, using an optical shutter means disposed between the sample and the detector.

Claim 13 (previously presented): The method as defined in Claim 12, wherein the detector is a non-descan detector.

Claim 14 (previously presented): The method as defined in Claim 12, wherein the detector is a descan detector.



CONCLUSION

It is respectfully submitted that the application is in condition for allowance. Favorable consideration of this reply brief is respectfully requested.

Respectfully submitted,

DARBY & DARBY, P.C.

Dated: Friday, July 27, 2007

Respectfully submitted,

By 

Erik R. Swanson

Registration No.: 40,833

DARBY & DARBY P.C.

P.O. Box 5257

New York, New York 10150-5257

(212) 527-7700

(212) 527-7701 (Fax)

Attorneys/Agents For Applicant